

## Angiofibroma in an elderly – A Case Report

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### ABSTRACT

Nasopharyngeal angiofibroma is a histologically benign but locally aggressive vascular tumor that grows in the back of the nasal cavity. It most commonly affects adolescent males. Patients with nasopharyngeal angiofibroma usually present with one-sided nasal obstruction and recurrent bleeding. A case of angiofibroma is presented herewith in a 52 years old man with history of bilateral nasal obstruction and blood stained nasal discharge but no epistaxis as expected in angiofibroma. He was treated successfully with transmaxillary approach.

**Keywords:** angiofibroma, epistaxis, nasal obstruction, blood stained discharge, transmaxillary

### INTRODUCTION

Nasopharyngeal angiofibroma is highly vascular, benign, yet locally destructive neoplasm, first recognized by Hippocrates in 4<sup>th</sup> Century BC.<sup>1</sup> In 1847, Chelius described fibrous nasal polyp growing at the time of puberty.<sup>2</sup> Almost 100 years later, the term “nasopharyngeal angiofibroma” was used initially to describe this rare neoplasm.<sup>3</sup> Alternative titles such as juvenile angiofibroma, nasopharyngeal fibroma and bleeding fibroma of adolescence are also used. These constitute 0.5% of all neoplasms of head and neck. The incidence ranges from 1:5000 to 1:60,000 in otolaryngologic patients.<sup>4</sup> It occurs almost exclusively in adolescent males with an average age of onset being 14 years.

As this tumor is almost exclusively found in adolescent boys, there has always been much speculation and indirect evidence that sex-hormone receptors play some role in its development. Recent immunocytological techniques have been used to show that androgen receptors are present in at least 75% of tumors, these receptors are present in both vascular and stromal elements.<sup>5</sup>

### CASE REPORT

A 52 year old man presented with bilateral

nasal obstruction with history of recurrent episodes of blood stained nasal discharge since 3 years, but without any profuse bleeding. Anterior rhinoscopy revealed presence of a fleshy mass in right nasal cavity almost completely blocking view of choana. Posterior rhinoscopy revealed large fleshy mass occupying nasopharynx and right choana. There were no other abnormalities in pharynx, larynx and ears. Plain skiagram of the para nasal sinuses (PNS) revealed soft tissue shadow in right nasal cavity. CT scan of PNS (both coronal and axial sections) revealed a large soft tissue mass occupying right nasal cavity, nasopharynx, maxillary, sphenoid and ethmoid sinuses. No intracranial extension of the tumor was noticed. A punch biopsy using Zero degree endoscope was taken. Mild bleeding followed, which was controlled by nasal packing for 24 hours. Histopathology of the tumor mass confirmed the diagnosis of nasopharyngeal angiofibroma.

The tumor was accessed by transmaxillary approach using Weber - Fergusson incision under general anaesthesia. Anterolateral surface of maxilla and lateral wall of nose (inferior turbinate) was removed. It offered excellent exposure to all parts of the tumor thereby making subsequent mobilisation of mass easy and with less blood loss. The base was

attached to postero-superior part of lateral nasal wall which was dissected out with blunt dissection from all around and mass was removed in toto. Bleeding was controlled by post nasal packing. Post operative period was uneventful and patient was discharged with an advice for regular follow-up.

## DISCUSSION

Nasopharyngeal angiofibroma is a benign but a highly vascular tumor with potential for extrapharyngeal and intracranial extensions. In spite of being a highly vascular tumour, there was no episode of spontaneous epistaxis in this particular case. Similar finding was reported by Singh et al.<sup>6</sup> Differing the views expressed in the available literatures, this case belongs to an elderly man of age 52 years.

The present controversy regarding therapy has two proponents, those favouring surgery and those favouring radiation. As quoted by Briant et al., 1970, "Pressman stated that- of all the methods of treatment, surgery alone has proven effective".<sup>7</sup> Of the different techniques available, the transmaxillary approach offers excellent exposure making subsequent mobilisation easy, thus, reducing blood loss and hospitalization to encouragingly low levels. With this approach, there are less chances of leaving residual mass and follow up is easy. Improved results can be attributed to advances in surgical technique, coupled with advent of CT PNS with contrast.

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